REMARKS

Status Of Application

Claims 42-51 are pending in the application; the status of the claims is as follows:

Claims 42-49 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,837,840 to Goldman ("Goldman").

Claims 50 and 51 are newly added by this amendment.

The acknowledgement, in the Office Action, of a claim for foreign priority under 35 U.S.C. § 119(a)-(d), and that the certified copies of the priority documents have been received from Application No. 08/327,223, is noted with appreciation.

Claim Amendments

Claims 42-49 have been amended to more particularly point out and distinctly claim the invention. These changes do not introduce any new matter.

35 U.S.C. § 102(b) Rejection

The rejection of claims 42-49 under 35 U.S.C. § 102(b) as being anticipated by Goldman, is respectfully traversed based on the following:

Goldman provides a system for verifying the authenticity of documents, such as bank notes. A characteristic such as luminance is measured a specified area of the note (10, 36). A "tri-level" bar code is then printed on the note (12, 26 and 42) (See col. 3, lines 19-32, col. 5, lines 9-61). The measurement areas ("pixels") are tested to see if they are of average luminance, below average or above average (col. 5, lines 20-37). These categories are then compared against the tri-level code to determine authenticity.

In contrast to the cited references, claim 42 includes:

> an extracting device which extracts additional data embedded in a plurality of positions in the image data read by said reading device; and
> a decision device which decides, based on a comparison of the additional data extracted from at least one of the plurality of positions with the additional data extracted from at least one of the other of the plurality of positions, whether the image data is forged or not.

In paragraph 1(d) of the Office Action, it is asserted that Goldman shows "comparing the plurality of sets of additional data." However, the only comparison shown or suggested by Goldman is comparing the dashed lines (12, 26) with readings sensed from the translucency of the designated areas (10, 36) (col. 3, lines 26-32, col. 7, 16-19). The only way that the "tri-level codes" are combined in any way is to produce a Boolean output for comparison to the physical characteristic data (col. 7, lines 27-46). There is no suggestion of a decision device that decides base on "a comparison of the additional data extracted from at least one of the plurality of positions with the additional data extracted from at least one of the other of the plurality of positions." To anticipate, the reference must show, expressly or inherently, every limitation of the claim. MPEP §2131. The cited references do not show or suggest the quoted limitation. Therefore, the cited references do not anticipate claim 42 and claim 42 is patentably distinct from the prior art.

Also in contrast to the cited references, claim 43 includes:

> an extracting device which extracts additional data embedded in the image data read by said reading device;
> a measuring device which measures a dimension of a pattern included in the image; and
> a decision device which decides whether the image data is forged or not by comparing the dimension measured by said measuring device with the additional data.

Goldman does not show or suggest "a measuring device which measures a dimension of a pattern included in the image." As Goldman does not show or suggest measuring any pattern, it cannot suggest "a decision device which decides ... by

comparing the dimension measured by said measuring device with the additional data." Because the cited references do not show or suggest the quoted limitations, the cited references do not anticipate claim 43 and claim 43 is patentably distinct from the prior art.

Also in contrast to the cited references, claim 44 includes:

> a counter which counts a total number of pixels in an area of the image having a density equal to or larger than a predetermined value; and
> a decision device which decides, based on a comparison of the additional data extracted by said extracting device with the number of pixels equal to or larger than the predetermined value determined by the counter, whether the image data is forged or not.

The Office Action states that Goldman discloses a counter. Applicants respectfully submit that there is no counter in the Goldman reference. Further, the Office Action states that:

> a counter is inherently included in Goldman's system to determine the density level of pixel areas 70, 72 and 74 as shown in Figure 5 because density is equal to $\frac{Numberofpixels}{area}$, and the number of pixels must be counted in order to derive the density level.

Applicants respectfully submit that a counter is not inherently present in the Goldman reference. Goldman uses broad ranges of density and excludes spikes, such as 108 and 110 of Figure 5. The density of an area may be categorized by having no pixels above or below an average for low density and high density, respectively, and average if it includes both. This is strongly implied from Goldman's explanation of the coding (col. 5, lines 24-37):

> Pixel areas 36 labeled A are located predominantly in a light band 32. Pixel areas 36 labeled B are located predominantly in a dark band 30, and pixel areas 36 labeled C are substantially split or divided between dark bands 30 and light bands 32. Thus, overall the pixel areas 36 labeled A are definitely lighter than an average reading. The pixel areas 36 labeled B overall are definitely darker than an average reading, and the pixel areas 36 labeled C

> are generally divided to provide a somewhat average light level. These distinctions are employed in the system of the present invention to accomplish the binary tri-level code which is illustrated beneath the fragment 28 in FIG. 3 and will now be explained.

This determination does not require a counter. Further, density is not just a function of the number of pixels, but can also be a function of the pixel size (See *e.g.* U.S. Patent No. 6,456,392, Figure 16). For all of these reasons, a counter is not inherent in the Goldman reference.

Further, a simple counter does not meet the claim limitations. In claim 44, the counter "counts a total number of pixels in an area of the image having a density equal to or larger than a predetermined value" and compares that count to the additional data. There is nothing in Goldman that remotely suggests this type of operation.

The cited references do not show or suggest the quoted limitations. Therefore, the cited references do not anticipate claim 44 and claim 44 is patentably distinct from the prior art. Claim 50 is dependent upon claim 44, and thus includes every limitation of claim 44. Therefore, claim 50 is not anticipated by the cited references and is patentably distinct from the prior art.

Also in contrast to the cited references, claim 45 includes:

> an extracting device which extracts a plurality of sets of additional data embedded in image data read by said reading device; and
> a decision device which decides whether the image data is forged or not, by comparing the plurality of sets of additional data extracted by said extracting device.

As noted above with regard to claim 42, there is no suggestion of "comparing the plurality of sets of additional data extracted by said extracting device" in the cited references, only comparison of the "tri-level code" with corresponding translucency measurements. The cited references do not show or suggest the quoted limitation.

Therefore, the cited references do not anticipate claim 45 and claim 45 is patentably distinct from the prior art.

Also in contrast to the cited references, claim 46 includes:

> extracting additional data embedded in a plurality of positions in the read data; and
> deciding, based on a comparison of the extracted additional data from at least one of the plurality of positions with the additional data extracted from at least one of the other of the plurality of positions, whether the image data is forged or not.

As noted above with regard to claim 42, there is no suggestion of "a comparison of the extracted additional data from at least one of the plurality of positions with the additional data extracted from at least one of the other of the plurality of positions" in the cited references, only comparison of the "tri-level code" with corresponding translucency measurements. The cited references do not show or suggest the quoted limitation. Therefore, the cited references do not anticipate claim 45 and claim 45 is patentably distinct from the prior art.

Also in contrast to the cited references, claim 47 includes:

> extracting additional data embedded in the read data;
> measuring a dimension of a pattern included in the image,
> deciding whether the image data is forged or not by comparing the measured dimension with the additional data.

Goldman does not show or suggest "measuring a dimension of a pattern included in the image." As Goldman does not show or suggest measuring any pattern, it cannot suggest "deciding whether the image data is forged or not by comparing the measured dimension with the additional data." Because the cited references do not show or suggest the quoted limitations, the cited references do not anticipate claim 47 and claim 47 is patentably distinct from the prior art.

Also in contrast to the cited references, Claim 48 includes:

> counting a total number of pixels in an area of the image having a density equal to or larger than a predetermined value;
> extracting additional data embedded in positions in the read data; and
> deciding, based on a comparison of the extracted additional data with the total number of pixels in the area of the image having a density equal to or larger than a predetermined value, whether the image data is forged or not.

As noted above with regard to claim 44, the cited references do not show or suggest "counting a total number of pixels in an area of the image having a density equal to or larger than a predetermined value" and comparing that count to the additional data. Therefore, the cited references do not anticipate claim 48 and claim 48 is patentably distinct from the prior art. Claim 51 is dependent upon claim 48, and thus includes every limitation of claim 48. Therefore, claim 51 is not anticipated by the cited references and is patentably distinct from the prior art.

Also in contrast to the cited references, claim 49 includes:

> extracting a plurality of sets of additional data embedded in the read image data; and
> deciding whether the image data is forged or not, by comparing the plurality of sets of extracted additional data.

As noted above with regard to claim 42, there is no suggestion of "comparing the plurality of sets of extracted additional data" in the cited references, only comparison of the "tri-level code" with corresponding measurements. The cited references do not show or suggest the quoted limitation. Therefore, the cited references do not anticipate claim 49 and claim 49 is patentably distinct from the prior art.

Accordingly, it is respectfully requested that the rejection of claims 42-49 under 35 U.S.C. § 102(b) as being anticipated by Goldman, be reconsidered and withdrawn.

Further, it is respectfully submitted that new claims 50 and 51 are patentably distinct from the prior art.

CONCLUSION

Wherefore, in view of the foregoing amendments and remarks, this application is considered to be in condition for allowance, and an early reconsideration and a Notice of Allowance are earnestly solicited.

This Amendment increases the number of independent claims by 4 from 4 to 8, but does not increase the total number of claims and does not present any multiple dependency claims. Accordingly, a Response Transmittal and Fee Authorization form authorizing the amount of $800.00 to be charged to Sidley Austin LLP Deposit Account No. 18-1260 is enclosed herewith in duplicate. However, if the Response Transmittal and Fee Authorization form is missing, insufficient, or otherwise inadequate, or if a fee, other than the issue fee, is required during the pendency of this application, please charge such fee to Sidley Austin LLP Deposit Account No. 18-1260.

If an extension of time is required to enable this document to be timely filed and there is no separate Petition for Extension of Time filed herewith, this document is to be construed as also constituting a Petition for Extension of Time Under 37 C.F.R. § 1.136(a) for a period of time sufficient to enable this document to be timely filed.

Any other fee required for such Petition for Extension of Time and any other fee required by this document pursuant to 37 C.F.R. §§ 1.16 and 1.17, other than the issue fee,

and not submitted herewith should be charged to Sidley Austin LLP Deposit Account No. 18-1260. Any refund should be credited to the same account.

Respectfully submitted,

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